

Product Name

产品名称

SMT-516Neutral Silicone Weatherproof Sealant

SMT-516 中性硅酮耐候胶

Description

描述

SMT-516 is a neutral ketoxime-curing silicone weatherproof sealant with excellent elasticity and joint movement accommodation capacity. It achieves reliable adhesion to various powder-coated metals. Its thixotropic characteristic prevents sagging during building joint filling, making it particularly ideal for door and window sealing. Besides, it offers outstanding adhesion and compatibility with most substrate surfaces. Featuring great resistance to aging, UV radiation and extreme temperature variations, it can be widely adopted in diverse bonding and sealing applications.

This product is indicated for:

- Sealing and joint filling for doors and windows
- Assembly bonding and sealing of small household appliances
- Sealing and joint filling between metal, aluminum alloy doors & windows and walls
- Glass, coated glass, ceramic tiles, stone, concrete and other substrates

SMT-516属于中性脱肟型硅酮耐候胶，具有较好的弹性及位移变形能力；对各种粉末涂层金属具有良好的粘接能力，产品的触变性使其在建筑填缝应用时不会产生流挂现象，因而特别适用于门窗的密封应用，同时对大多数基材表面具有很好的粘接性和相容性，抗老化、抗紫外线辐射以及耐极端的高低温变化，能广泛的应用于粘接及密封应用场合。

本品适用于：

- 门窗密封及填缝应用
- 小家电等装配粘接密封
- 金属与铝合金门窗与墙体间的密封与填缝应用
- 玻璃、镀膜玻璃、瓷砖及砖石混凝土等

Properties

产品特点

- Ketoxime-curing, high modulus, neutral cure, non-corrosive to most construction materials.
- Excellent weather aging resistance, with superior performance against aging, UV rays, ozone and water.
- One-component for easy application, featuring good extrudability and thixotropy at 5°C to 40°C.
- Delivers outstanding adhesion to most construction substrates and forms robust sealing joints.
- Good compatibility with other neutral silicone sealants.
- 脱酮肟型、高模量、中性固化，对大多数建筑材料无腐蚀
- 优异的耐气候老化性能，耐老化、耐紫外线、耐臭氧、耐水
- 单组分、使用方便，在 5°C-40°C 具有良好的挤出性和触变性
- 对大部分建筑材具有优良的粘接性，可以形成很强的密封
- 与其他中性硅酮胶具有良好的相容性

Applications

产品应用

Before application:

- Prior to application, compatibility tests between the sealant and contacting materials as well as adhesion tests on the substrates to be bonded shall be carried out.

Construction Method:

- All application surfaces must be clean, dry and free of contaminants.
- Fit the cartridge into a suitable caulking gun. Cut the nozzle according to joint width, then extrude sealant into the joint to ensure full contact between sealant and joint edges.
- Compact the sealant with a proper tool and scrape off excess material.

施工前:

- 施工前应进行密封胶与所接触材料的相容性试验和与待粘结基材的粘结性试验。

施工方法:

- 施工表面必须清洁、干燥、无污垢。
- 将胶管装在合适的胶枪上，根据接缝宽度切割胶嘴，将胶挤入接缝中，确保胶与接缝的边完全接触。
- 用合适的工具压实密封胶，并刮除多余的胶。

Storage

存储要求

This product is non-hazardous. Store in cool and dry place below 10-27°C. Shelf life: 12 months. Use as soon as possible.

本产品属于非危险品，储存于温度在10--27°C的阴凉干燥处，有效期为12个月，建议尽早使用。

Note

注意事项

- Not recommended for joints with movement exceeding $\pm 15\%$.
 - Shall not be used as structural glazing sealant.
 - Not suitable for copper and polycarbonate substrates.
 - Application is prohibited when substrate surface temperature is below 5°C or above 40°C .
 - Unsuitable for frosty, damp locations or areas with continuous water immersion.
 - Avoid contact with rubber materials (rubber gaskets, rubber spacers, etc.) to prevent yellowing.
 - Keep away from acidic or alkaline substances such as exterior wall cleaners to avoid discoloration.
 - Not applicable to substrates exuding grease, plasticizers or solvents, e.g. surfaces of oil-impregnated wood.
 - Use within shelf life; expired product must not be applied.
 - Construction shall be performed strictly in accordance with adhesion test procedures.
 - Avoid direct contact with skin and eyes; do not ingest.
 - Keep away from children and store out of their reach.
 - Do not apply in airtight poorly ventilated spaces, as the sealant cures by absorbing moisture from the air.
 - Trace chemicals will be released during curing. Adequate ventilation must be maintained at the work site. The fully cured product is non-toxic to humans.
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- 不建议位移超过 $\pm 15\%$ 的接口密封。
 - 不能作为结构密封胶使用。
 - 不宜用于铜及聚碳酸酯材料。
 - 材料表面温度低于 5°C 或超过 40°C 时，不宜施工。
 - 不宜用于结霜、潮湿或连续浸水的地方。
 - 应避免与橡胶类材料接触（如胶条、橡胶垫块等），以免发生黄变。
 - 应避免与酸性或碱性物质接触（如外墙清洗液），以免发生变色。
 - 不宜用于所有会渗出油脂、增塑剂或溶剂的材料，如浸油木材的表面。
 - 应在产品保质期内使用，过期产品不得使用。
 - 应严格按照粘结性试验的流程施工。
 - 避免皮肤和眼睛直接接触，请勿吞食。
 - 避免小孩接触。请放置于儿童接触不到的地方。
 - 不宜用于密不通风的场所，因为密封胶需吸收空气中的水分固化。
 - 产品在固化过程中会释放出微量化学物质，作业场所应保持充分的通风，固化后对人体无毒。

Shelf life & Instruction

使用寿命和说明

Shelf life: 12 months

保质期：12 个月

These instructions are only recommendations, which are based on our experience. We advise preliminary testing before use.

这些说明只是基于我们的经验的建议。我们建议在使用前进行初步测试。

Packaging Specification

包装规格

This product is available in standard 300ml rigid cartridges (24 pieces per carton) and 600ml soft sausage packs (20 pieces per carton). Custom filling specifications can be provided upon customer request.

本产品采用标准的 300ML 胶料胶瓶包装，24 支/箱；600ML 软支包装，20 支/箱。也可根据客户要求灌装。

Technical Data Sheet (Condition: 23°C, 55%RH)

技术参数表 (条件: 23°C, 55%RH)

Test Items		Technical requirements	Typical Data	Test Method
Appearance		Smooth and uniform paste, free of bubbles, skinning and gel lumps	Smooth and uniform paste, free of bubbles, skinning and gel lumps	Visual inspection
Density, g/cm ³		1.50±0.03	1.52	GB/T 13477.2-2018
Sag Resistance	vertical, mm	≤3	0	GB/T 13477.6-2002
Extrudability, g/ 5s		>25 (Nozzle tip diameter: ϕ 3.2 mm, operating pressure: 0.4 MPa)	40	GB/T 13477.4
Tack-free time, min		15-30	20	GB/T 13477.5-2002
Hardness, Shore A		35-45	42	GB/T 39693.4-2025
Elastic Recovery Rate, %		≥80	87	GB/T 13477.17-2002
Tensile Modulus, MPa	23°C	>0.4	0.5	GB/T 13477.8
	-20°C	或>0.6	/	
Elongation Adhesion		No Failure	No Failure	GB/T 13477.10-2002
Elongation Adhesion after Immersion		No Failure	No Failure	GB/T 13477.11-2002
Adhesion after Cold Tensile-Hot Compression Cycling		No Failure	No Failure	GB/T 13477.13-2002
Mass Loss Rate, %		≤8	7	GB/T 13477.19-2002

检测项目		技术指标	典型数据	检测标准
外观		细腻、均匀膏状物，不应有气泡、结皮或凝胶	细腻、均匀膏状物，不应有气泡、结皮或凝胶	目测
密度, g/cm ³		1.50±0.03	1.52	GB/T 13477.2-2018
下垂度	垂直, mm	≤3	0	GB/T 13477.6-2002
挤出性, g/ 5s		>25 (尖嘴 ϕ 3.2mm, 压力 0.4MPa)	40	GB/T 13477.4
表干时间, min		15-30	20	GB/T 13477.5-2002

硬度, Shore A		35-45	42	GB/T 39693.4-2025
弹性恢复率, %		≥80	87	GB/T 13477.17-2002
拉伸模量, MPa	23°C	>0.4	0.5	GB/T 13477.8
	-20°C	或>0.6	/	
定伸粘结性		无破坏	无破坏	GB/T 13477.10-2002
浸水后定伸粘结性		无破坏	无破坏	GB/T 13477.11-2002
冷拉热压后粘结性		无破坏	无破坏	GB/T 13477.13-2002
质量损失率, %		≤8	7	GB/T 13477.19-2002